age was 68 (interquartile range 58-74) and 539 (37%) were female. We used multiple logistic regression to evaluate preoperative risk factors for mortality and neurologic deficit.

Results: Immediate neurologic deficit occurred postoperatively in 37/1443 (2.5%) of patients. Significant predictors were extent II aneurysm and decreasing preoperative glomerular filtration rate (GFR). Use of cerebrospinal fluid drainage and distal aortic perfusion (adjunct) reduced neurologic morbidity by two thirds (odds ratio 0.33, $p<0.002$). For mortality, significant predictors were decreased GFR, preoperative rupture, peripheral vascular disease, coronary artery disease and extent 2 or 3 aneurysm. With normal GFR ($>$ 90 ml/min 1.73 m^2), mortality was 6%.

Conclusion: Use of the adjunct cerebrospinal fluid drainage and distal aortic perfusion has had a major impact on spinal cord morbidity. The greatest mortality occurs in patients with multiple preoperative risk factors, with treatment playing a secondary role. Patients with good preoperative renal function have low morbidity and mortality.

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PP74.

Acute Aortic Treatment Center - Time to Change the Paradigm

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Background: Acute aortic syndromes are life threatening. Time is of the essence as mortality rises with increasing time after the acute episode. The keys to successful treatment of acute aortic disease include early diagnosis, transfer to the appropriate care facility, rapid institution of therapy, availability of cardiovascular anesthesia, and dedicated cardiovascular intensive care unit care.

Objective: To report the outcomes of a pathway, an Acute Aortic Treatment Center (AATC), to expedite the care of acute aortic syndromes in a major metropolitan area with the hypothesis that "door to intervention" time under 90 minutes reduces mortality and morbidity from acute aortic disease.

Methods: A database of patients admitted with aortic disease during one year prior to initiation (2007) and one year after initiation of AATC in 2008 was developed. Anatomic and functional outcomes were determined and categorized by Society of Vascular Surgery reporting criteria. Multivariate analysis and Cox proportional hazard analyses were performed.

Results: A Total of 621 patients reported with aortic disease to the cardiovascular services; 304 patients were admitted of which 73(25%) were considered to have acute disease. When compared to the year before the AATC there was a 10 % increase in total number of admissions and a 25 % increase in acute pathology after setting up the AATC ($p=0.02$). There was a 2 fold increase in thoracic aortic dissections admitted to the service. Initiation of AATC resulted in significant reduction in time to definitive therapy (61% decrease) ($p=0.016$). Despite the increase in acuity, mortality and morbidity rates were unchanged and there were trends to lower ICU and total hospital stay (Table).

Conclusion: Institution of AATC increased awareness for correct and early diagnosis of the acute aorta, reduced time to definitive treatment, increased referrals and appeared to impact inpatient hospital stays. Widespread adoption of the AATC paradigm is recommended.

Table

Variable	*Pre- AATC*	*AATC*	*p-value*
Total Inpatients - n (%)	130	161	
Acute Presentations - n (%)	24(18)	49(30)	**0.02**
Time to Definite Acute Care - mean ± SD (median) min	328±363 (107)	129±156 (73)	**0.015**
Mortality - n (%)	1(4)	5(10)	0.66
Morbidity - n (%)	19(79)	33(67)	0.41
LOS ICU - mean ± SD days	11±14	9±8	0.52
LOS Hospital - mean ± SD days	21±20	15±9	0.17

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PP75.

Incidence and Risk Factors of Renal Dysfunction after Thoracic Endovascular Aortic Repair

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Objectives: The incidence and risk of renal failure after thoracic endovascular aortic repair (TEVAR) has not been well established. The aim of this study was to assess the incidence of renal failure after TEVAR and to determine associated risk factors.

Methods: Between 1998 and 2008, 175 consecutive patients underwent 210 TEVAR procedures for various aortic pathologies at two tertiary academic institutions. Similar imaging protocols such as intravascular ultrasound (IVUS) and nephro-protective measures were used. Retrospective analysis of prospectively collected data was performed. Linear regression analysis was performed to identify factors ($p<0.05$) associated with a decrease in estimated glomerular filtration rate (eGFR) based on the RIFLE criteria.

Results: The patient's underlying aortic pathologies included: 103 aneurysms, 72 dissections, 21 transections, and 14 penetrating ulcers. Median age was 70 years (interquartile range (IQR): 58-78). Median preoperative eGFR was 65 mL/min/1.73m^2 (IQR 47-86). Average procedural contrast was 108.7±69.8mL (IQR: 60-150). Median eGFR at 24 hrs, and 30 days were 69mL/min/1.73m^2 (IQR: 46-95) and 67mL/min/1.73m^2 (IQR: 48-88), respectively. The rate of acute renal injury, acute renal failure, and hemodialysis was 13.7% (27/197), 3.1% (6/197) and 0.5% (1/197), respectively. At one month, the rate of worsening renal function from baseline was 13.3% (10/75), while at 6 months it was 17.7% (6/34). No additional patients went on hemodialysis in follow-up. Risk factors associated with decrease in eGFR at 24 hrs were procedural blood loss, packed red blood cells transfusion, lengthy procedures, open surgical conversion and number of deployed stent grafts. At one month, prognostic factors included increasing age, preoperative leaking aortic pathologies, concomitant abdominal aortic aneurysm, zone 0-2 deployment, larger proximal neck diameter, and shorter ICU and hospital stay. Nephro-protective factors were obesity, trauma as underlying pathology, preoperative metastable hemodynamics and perioperative deep venous thrombosis.

Conclusion: The incidence of renal failure in this cohort was lower compared to previous smaller series. Routine use of IVUS, and significantly reduced contrast use may contribute to lower rate of renal failure in early follow-up.

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PP76.

Thoracic Stent Implantation and Conventional Surgical Repair after Previous Abdominal Ortic Aneurysm Surgery

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Background: Patients with descending thoracic aneurysm (DTA) repair after previous abdominal aortic aneurysm (AAA) surgery have a high risk for spinal cord ischemia and renal dysfunction. This study evaluates the outcome after thoracic endograft implantation and conventional descending aneurysm surgery in patients with prior AAA repair.

Methods: Retrospectively, 63 patients with previous AAA repair were identified. In 29 patients thoracic endograft was implanted (8 emergency). Twenty-one patients had DTA and 8 patients type B dissection. In the surgical group we included 20 patients with descending aortic replacement above the diaphragm comparable with the endovascular group. There were 10 emergency procedures. Two patients had type B dissection and 18 patients DTA.

Results: The mean time interval between prior AAA repair and subsequent thoracic procedure was 5.5 years (125 days to 17 years) for endograft and 5.7 years (16 days to 13 years) for surgical repair. Endograft placement was successful in all patients. In 5 patients the left subclavian artery was occluded. The 30-day mortality was 6.8% (2/29 pts.) in the endovascular group and 15% (3/20 pts.) in the surgical group. The rate of postoperative neurological complications differed but without statistical significance,